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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,616

04/05/2006

Shinji Mackawa

740756-2948

2107

22204 7590 12/10/2008

NIXON PEABODY, LLP

401 9TH STREET, NW

SUITE 900

WASHINGTON, DC 20004-2128

EXAMINER

PHAM, THANHHA S

ART UNIT

PAPER NUMBER

2894

MAIL DATE

DELIVERY MODE

12/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,616	Applicant(s) MAEKAWA ET AL.	
	Examiner Thanhha Pham	Art Unit 2894	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 5-7,9 and 11-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,8 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/5/2006, 6/14/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to Applicant's Response to Restriction Requirement dated 9/19/2008.

Election/Restrictions

1. Claims 5-7, 9 and 11-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions and species. Election was made in the reply filed on 6/12/2008 and 9/19/2008.
2. Applicant's election of claims 1-4, 8 and 10 in the reply filed on 9/19/2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. Claim 2 is objected to because of informalities. Appropriate correction is required.

- With respect to claim 2,
line 7, the typographical error “the fight-absorbing material” should be changed to “the light-absorbing material”

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 10 is rejected under 35 U.S.C. 112, first paragraph, because the specification (text [0041]- [0044]) and figs 1A-2C, while being enabling for “the second region 72a/72b has higher wettability than the first region 71 with respect to the compound 75a/75b”, does not reasonably provide enablement for “the first region has higher wettability than the second region with respect to the compound”. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with claim 10.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3-4, 8 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

► With respect to claim 3,

lines 3-4, phrase of “forming a first region having a substance including a light-absorbing material forming a pattern on the second region by discharging a compound including a pattern forming material” is very confuse so scope of claim cannot be defined. In addition, it is not clear where “a first region” and “the second region” are formed and located.

► With respect to claim 8,

Lines 3-4, claim 8 contains the trademark/trade names “coumarin 6H, coumarin 30, coumarin 102, coumarin 152, coumarin 153, or coumarin 545T” . Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name “coumarin 6H, coumarin 30, coumarin 102, coumarin 152, coumarin 153, or coumarin 545T” is used to identify/describe the

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light absorbing material and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 8 and 10, as being best understood, are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shirota et al [US 6,399,257].

► With respect to claims 1-3, Shirota et al (figs 1A-1F, cols 1-11) discloses the claimed method for forming a pattern comprising steps of:

forming a mask (2, fig 1A, col 3 lines 37-53 & col 5 lines 25-35) over a light-transmitting substrate (1);

forming a first region (region coated by photosensitive layer 3, fig 1B, col 3 lines 60-67, col 4 lines 1- 27) having a substance including a light-absorbing material (photosensitive compound, col 3 lines 67) over the light-transmitting substrate and the mask;

forming a second region (4, fig 1C, col 5 lines 25-45) by irradiating the substance with light through the light- transmitting substrate to modify a part of the substance

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surface wherein the light has a wavelength which is inherently absorbable by the light-absorbing material; and

forming a pattern (6, fig 1D, col 6 lines 1-64) on the second region by discharging a compound including a pattern forming material.

► With respect to claim 4, Shirota et al (col 3 lines 60-67 & col 4 lines 1-27) discloses the light absorbing material is dissolved in the substance to form the substance including the light absorbing material (col 3 lines 66-67 & col 4 lines 22-27: *photosensitive compound selected from Ti_3O , SnO_2 , ZnO , WO_3 , $SrTiO_3$ and Fe_2O_3 would be dissolved in alcohol to form the substance including the light absorbing material 3*).

► With respect to claim 8, Shirota et al (col 5 lines 8-16) discloses the wavelength of light is 300 nm or more and 40 nm or less.

► With respect to claim 10, Shirota et al (abstract, figs 1C-1D, col 5 lines 25-35 & col 6 lines 1-5) discloses the second region (4) has higher wettability than the first region (5) with respect to the compound (6).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhha Pham whose telephone number is (571) 272-1696. The examiner can normally be reached on Monday and Thursday 9:00AM - 9:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Nguyen can be reached on (571) 272-2402. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thanhha Pham/
Primary Examiner, Art Unit 2894